

Linzer biol. Beitr.	41/1	367-372	30.8.2009
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A new species of *Microdaccus* SCHAUM 1864 from Cyprus (Coleoptera, Carabidae, Lebiini)

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A b s t r a c t: *Microdaccus assingi* nov.sp. is described from the Republic of Cyprus (Type locality: 35 km SW Platres, Kidasi village, bank of Diarizo river, 300 m). Members of this dark species are similar to *M. opacus* (SCHAUM 1857) but are distinguished by smaller body size, different coloration of antennae, different construction of pronotal posterior angles, maxillary palpomeres 3, and median lobe of aedeagus including internal sac. Illustrations of the habitus, details of the pronotal posterior angle, and the male genitalia including the internal sac of the median lobe of the new species are presented.

K e y w o r d s: Coleoptera, Carabidae, Lebiini, *Microdaccus*, new species, Republic of Cyprus.

Introduction

The genus *Microdaccus* SCHAUM 1864 currently comprises six species of characteristic appearance ranging from the eastern Mediterranean region to Kazakhstan (KABAK 2003: 422), some other taxa have the status of subspecies but obviously the taxonomy of them is not well understood (see MATEU 1981).

Some years ago I received two unicolorous dark specimens of the genus *Microdaccus* SCHAUM from Cyprus, which, as there was only one dark species known, were identified as *M. opacus* (SCHAUM 1857). Recently, I received another two specimens of a dark species, coming from the Peloponnesus, investigation has shown that the latter are the true *M. opacus* (SCHAUM) and that the specimens from Cyprus represent a new species which description is the subject of this short paper.

Methods

Total body length is measured from the margin of the clypeus to the apex of the right elytron as the maximum linear distance, and the width of the head (HW) as the maximum linear distance across the head, including the compound eyes; the length of the pronotum (PL) from the anterior to the posterior margin along the midline; the length of the elytra (EL) from the basal margin at scutellum to the apex of the right elytron as the maximum linear distance; the width of the pronotum (PW) and elytra (EW) at their broadest point; the width of the pronotal base (PBaW) between the tip of the hind angles at insertion of seta.

These measurements, made at a magnification of 25× (body length) and 50×, respectively, and using an ocular micrometer in a Leica MZ 16 stereobinocular microscope, were combined in ratios or added as follows:

BL: total body length;

PW/PL: width /length of pronotum;

PW/HW: width of pronotum /width of head;

PW/PBaW: width of pronotum/width of the pronotal base;

EL/EW: length/width of elytra;

EW/PW: width of elytra/width of pronotum.

Microsculpture was examined at a magnification of 100×.

Line drawings were prepared by using an ocular grid (15 × 15 squares) attached to a Leica MZ 16 stereobinocular microscope. Dissections were made with standard techniques; genitalia were preserved in Euparal on acetate labels, and pinned beneath the specimens from which they had been removed. Photographs were taken with a Canon Power Shot 92 attached to a Nikon SMZ 1500 stereobinocular microscope, and were assembled from a stack of about 60 individual photographs taken at different focal planes using the software package Combine ZM (Hadley).

For comparisons two specimens of *M. opacus* (SCHAUM) were available: Greece (Korinthia), Peloponnesus, Kórinthos, 27.III.1988, A. Link leg. (1 ♂, 1 ♀, coll. Wrase). (I was unable to examine the type, as it could not be found in the collection of the Zoologische Staatssammlung, Munich, where it was thought to be stored – M. Balke in litt.).

Results

Microdaccus assingi nov.sp.

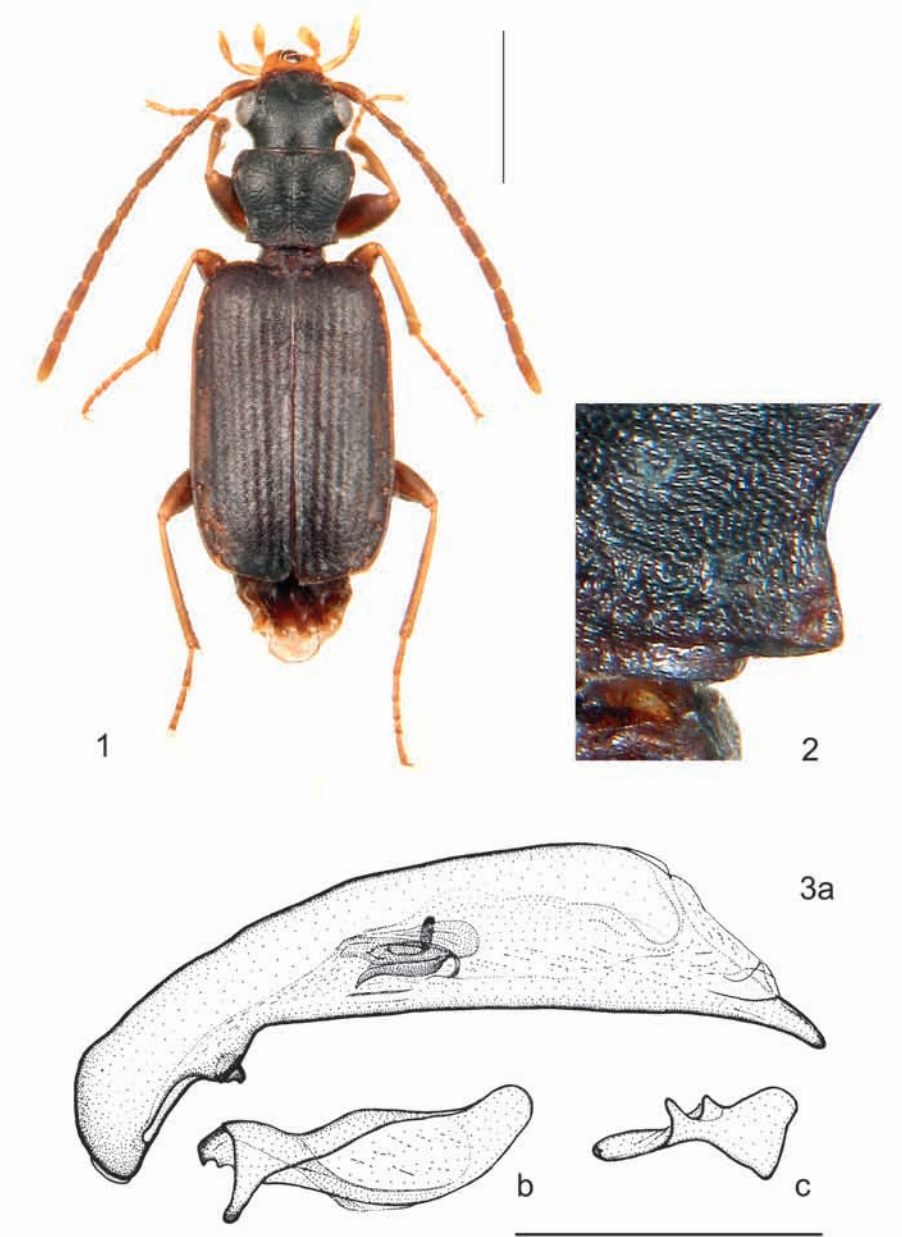
Type material: Holotype ♂: "CYPRUS – 35 km SW Platres, Kidasi [village]; ca 300 m Diarizo-Ufer 11.IV.1995 Assing". Paratype: 1 ♀, same data as holotype (holo- and paratype in Coll. Wrase, Berlin).

Diagnosis: A typical *Microdaccus* species of small size (with all characters given by MATEU 1981: 344), with body dark, tibiae and tarsi yellowish, femora darkened, and with antennae completely weakly infuscated. Similar to *M. opacus* (SCHAUM 1857) in dark coloration and in possession of a tooth at internal upper margin of mandibles but (beside other differences) much smaller in body size and with a different construction of the median lobe of the aedeagus including its internal sac. Habitus see Fig. 1.

Description: Body length 3.4 mm (holo- and paratype); width 1.44 mm (holotype), and 1.36 mm (paratype), respectively.

Colour: Body unicolorous dark piceous, mandibles (except tips), labrum, clypeus at its apical margin, and palpomeres yellowish, femora infuscated, tibiae and tarsi yellowish, all antennomeres weakly but distinctly infuscated throughout.

Head (Fig. 1) large, almost as wide as pronotum (ratio PW/HW in holotype: 1.09; in paratype: 1.06). Eyes fairly large, almost hemispherical. Antennae slender. Last maxillary palpomeres subacuminate at apex, not truncate.



Figs 1-3: *Microdaccus* nov.sp.: (1) Habitus; (2) Posterior angle of pronotum; (3a) Median lobe of aedeagus including internal sac, lateral view; (3b) Left paramere; (3c) Right paramere; Scale bar 1 mm (1), 0.3 mm (3a-c).

Pronotum (Fig. 1) almost cordate, distinctly wider than long (ratio PW/PL in holotype and paratype: 1.30), widest at about end of anterior fourth (at insertion of lateral seta). Anterior margin distinctly emarginate, anterior angles obtuse-angled, rounded at tip, distinctly projecting forward, from there slightly curved laterally till insertion of lateral seta. Strongly sinuate before posterior angles which are large, obtuse-angled, sharp at tip, directed outwards, and distinctly reflexed. Base medially slightly convex or almost rectilinear, laterally before posterior angles with almost angulate excision (Fig. 2), posterior angles somewhat shifted forward (ratio PW/PBaW in holotype: 1.26, in paratype: 1.30). Lateral furrows narrow throughout, anterior transverse impression obsolete, posterior transverse impression distinct and connecting both deep and large basal impressions. Medial longitudinal impression at base deep, reaching basal margin, toward apex becoming shallow and terminated at large distance before anterior margin.

Elytra (Fig. 1) elongate, sub-parallel, ratio EL/EW: 1.44 (holotype) – 1.48 (paratype); ratio EW/PW 1.64 (paratype) – 1.73 (holotype). Scutellar pore puncture present, no scutellar stria, no pore puncture in interval 3 (as usual in *Microdaccus* species). Humeri completely rounded, elytra widest at about beginning of posterior fifth. Striae only suggested, intervals moderately convex. Hindwings fully developed.

Microsculpture mesh pattern of upper surface in both sexes consisting of strongly engraved more or less isodiametric meshes, causing a shagreened and matt appearance.

Aedeagus (Figs 3a-c): Median lobe slender, ventrally almost rectilinear, with apical lamella small, somewhat reflexed. Internal sac (in inverted condition) with two chitinized lamellae somewhat before middle and close to ventral margin of median lobe. Right paramere (Fig. 3c) with apical part triangular, apically at left side broadly rounded, at right somewhat acute. Left paramere (Fig. 3b) elongate, apically broadly rounded.

C o m p a r i s o n s : Similar to *M. opacus* (SCHAUM 1857), recorded from Greece, Cyprus and Turkey (KABAK 2003: 422), and redescribed by GRIDELLI 1930: 60, and MATEU 1981: 346, in dark coloration and in possession of a tooth at internal upper margin of mandibles but much smaller (body size of *M. opacus* (SCHAUM) in my specimens 4.5-4.9 mm, in literature the size is given with 4.5 mm (GRIDELLI 1930: 60), with 4.5-5 mm (TRAUTNER & GEIGENMÜLLER 1987: 456) and with a different construction of the median lobe including its internal sac (compare Fig. 3a with Fig. 1 in MATEU 1981: 346). Additionally, the lateral excision of the pronotal base before the posterior angles (Fig. 2) is distinct and almost angulate, while in *M. opacus* the excision is only shallow. Further, *M. opacus* has the first three antennomeres somewhat lighter than the remaining ones, and the maxillary palpomeres 3 are subtruncate at apex, whereas in the new species the antennomeres are somewhat darkened throughout, and the maxillary palpomeres 3 are subacuminate.

All other congeners of *Microdaccus* have the elytra bicoloured (yellow orange to testaceous with black apex), therefore *M. assingi* nov.sp. on colour alone cannot be confused with these species.

Interestingly, it seems that the new species might already have been mentioned but not named in literature. GRIDELLI (1930: 60) dealing with *M. opacus* (SCHAUM), and in reporting specimens of this species he has seen from Greece and Cyprus in the Vienna Museum, noted in a short footnote that there was behind a specimen from Cyprus another one without locality label which differed by smaller size (3.5 mm). Most probably, it could belong to *M. assingi* nov.sp.

E t y m o l o g y : Cordially dedicated to my friend and colleague Dr Volker Assing (Hannover), excellent specialist in Staphylinidae, who, over the years has kindly donated to me numerous very interesting Carabidae that he has collected during his field excursions, and who collected the specimens of this new species.

D i s t r i b u t i o n : Up to now only known from the type locality on Cyprus (at Kidani village, district of Paphos) and most likely an endemic species. AUSTIN et al. (2008: 114) underline in their catalogue of the Carabidae of Cyprus that there are no topic findings of a *Microdaccus* species and that there are only citations for *Microdaccus opacus* (SCHAUM) on basis of examinations of 19th century collections after GRIDELLI 1930 and MATEU 1981.

H a b i t a t : The type locality is situated in a floodplain forest at the Diarizo river bank. The material was collected either by sifting alder and maple leaf litter or (more likely) from under stones.

Acknowledgements

I am pleased to express my appreciation to Michael Balke (Munich, Germany) for his assiduous but unfortunately fruitless efforts in searching for the type of *M. opacus* (SCHAUM), to Jon Cooter (Oxford, England) for reading a previous draft of the manuscript on which this paper is based; to Bernd Jaeger (Berlin, Germany) who made photographs of the new species; and finally to Andreas Link (Haid/Ansfelden, Austria), who generously donated the two specimens of *M. opacus* (SCHAUM), collected by him, to my collection.

Zusammenfassung

Microdaccus assingi nov.sp. wird von Zypern beschrieben. Locus typicus: 35 km SW Platres, Kidasi; Ufer des Diarizo, 300 m. Die schwarzbraune Art ist *M. opacus* (SCHAUM 1857) ähnlich, unterscheidet sich aber durch geringere Körpergröße, differierende Fühlerfärbung und Bildung der Hinterecken des Pronotums und des letzten Gliedes der Maxillarpalpen und einen anders gebauten Medianlobus einschließlich seines Internalsackes. Habitus, Details der Halsschildhinterecken und des Aedaeagus inklusive des Feinbaus des Internalsacks des Medianlobus der neuen Art werden abgebildet.

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Zeitschrift/Journal: [Linzer biologische Beiträge](#)

Jahr/Year: 2009

Band/Volume: [0041_1](#)

Autor(en)/Author(s): Wrase David W.

Artikel/Article: [A new species of *Microdaccus* SCHAUM 1864 from Cyprus \(Coleoptera, Carabidae, Lebiini\) 367-372](#)